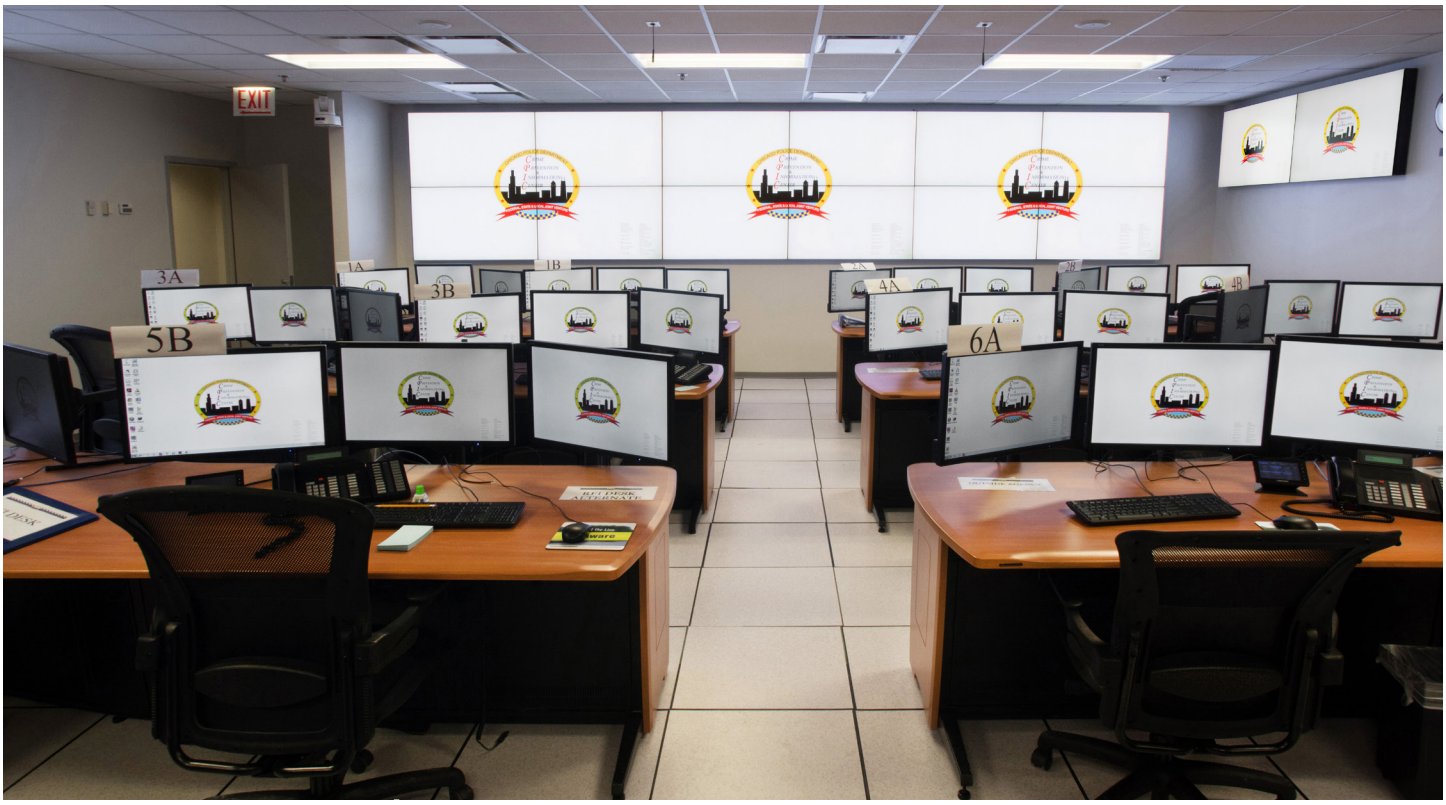
PLANAR

INSTALLATION PROFILE

Chicago Police Department



HIGHLIGHTS

Product Type
Clarity Matrix Video Wall

Location
Chicago, IL

Industry
Law Enforcement

Application
Control Room

Solving Crimes Quickly at the Chicago Police Command and Control Center

It's a given that big-city police departments are working hard to reduce violent crime. Yet crime rates dropped dramatically in the mid-1990s and again in the early 2000s. How can anyone expect to reduce them more?

One important answer is to get officers to the crime scenes more rapidly and to arm them with the best possible information about the crime, the victims and possible offenders.

To assist in that endeavor is the mission of the Crime Prevention and Information Center (CPIC) of the Chicago Police Department. CPIC personnel use advanced technology to bring together critical pieces of information to provide intelligence to field personnel. Among its most useful tools: an 18-display video wall built with Planar's Clarity™ Matrix LCD Video Wall displays.

24/7 operations

One of the biggest recent advances in police work is the availability of information used to investigate, anticipate and, ultimately, deter violent crime. CPIC personnel have a variety of resources available to them. The sources include camera views, gunshot detection devices, reported crime and a robust mapping system. The CPIC brings all of these sources together into one place, where officers can search and filter the data, share it with one another on the video wall, then relay information to officers in the field via radio communication, a computerized dispatching system and via portable data terminals in vehicles in the field.

The CPD has refined the CPIC concept for many years, and the room is now in its third iteration. "We helped design the first version back in the 1990s," recalls Jon Chuchla, Systems Engineerfor Chicago-based technology integrator Audio Visual Systems (AVS). "It was an emergency operations center manned only as needed."

In 2003 Chuchla and AVS redesigned this command center to help with day-to-day police operations as well as emergencies. It had workstations for up to ten officers plus a video wall and access to a small number of camera feeds and informational databases. "It was at this pointthat they named it CPIC and began staffing it 24 hours a day," Chuchla explains.

Chuchla says to support this crucial mission, he and his AVS team designed a highly-redundant system with key components spread out over three equipment rooms in different parts of police headquarters. The goal was to build a facility that would keep operating in an emergency, not subject to any foreseeable problems with weather, power, network or equipment failures.

Designing the video wall

Chuchla says the Clarity Matrix LCD video wall displays were the obvious choice for this facility. "First, we needed 24/7 functionality, which these displays offer. And, in fact, they've been on for almost a year and we have not yet seen a need to recalibrate."

"Second, with Planar it was easy to build in the redundancy we needed for mission-critical operations." Unlike standard displays, the Clarity Matrix power supply and quad controller modules are external to the display, mounted in a rack in an equipment room behind the video wall. "There's one power supply for every four monitors with a hot spare. If a power supply fails, the redundant one jumps in and then sends me an email."

The processors and glass are not redundant, but AVS keeps spares of all major network and video components at police headquarters and is, by contract, available to switch them out within a half hour. "The failure rate for Planar displays is much lower than for others we sell, but if something does happen, it's very easy to make the repair."

Third, Chuchla says that "We didn't want the complexity of an external video wall processor, and Planar's ability to show one image on each display, or spread a single image across multiple displays in display increments, was just what we needed." It was a win-win. AVS avoided having to charge for an expensive, unneeded component, and they avoided the added risk of that component breaking down.

The video wall installation was straightforward. AVS technicians hung the displays on the front and side walls of the room using the Planar® EasyAxis™ Mounting System for precision alignment. They installed five power supply modules and five Planar quad controller modules in a rack in an equipment room: one for each pod of four displays and one more for the pair of displays on the right-hand wall. They ran video from a very large Crestron switching matrix into the processors via 18 DVI cables. From the processors there are two Cat6a cables to each display, carrying electric power and video. "There's a receiving card in the back of the actual display," Chuchla explains. "Those are the only electronics on the monitor itself."

Chuchla kept control of the video wall as simple as possible. Each operator has a 5" Crestron touch screen and uses it to choose computer and video sources for three monitors at his or her workstation. Supervisors use a 15" touch screen to choose which workstation feeds are displayed on the video wall.

Chuchla says "What most matters for this video wall is its brightness, flexibility and reliability, that is, the availability of the content when something happens on the street. "The Planar displays are awesome, giving us all of that plus superb image quality. The Department has been very pleased with this solution."

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